December 1, 2010

INFORMATION BULLETIN 2010-08

To: Dental Registrants

From: David M. Howe, Interim Section Manager
Radiation Protection Services

IMPORTANT INFORMATION-
HAND-HELD DENTAL X-RAY SYSTEMS

Recently, Radiation Protection Services (RPS) has learned there is some confusion relating to the use of hand-held X-ray systems in Oregon. This bulletin is intended to clarify present rules pertaining to hand-held dental X-ray systems.

Please be advised that current Oregon Administrative Rules (OARs) do not allow for hand-held dental X-ray devices to be used as the sole X-ray device for general dentistry. Hand-held X-ray devices may not be used for daily, routine or general radiographic dental use in a practice where a stationary unit would normally be used.

Long-standing OAR 333-106-0045(3) states, in part, that portable X-ray equipment shall be used only for examinations where it is impractical to transfer the patient to a stationary X-ray installation. Examples include: use in nursing homes; mobile health care programs; special needs patients requiring assistance for disabilities such as medical, mental, or psychological; and sedated patients who are unable to cooperate with positional requirements of the radiograph.

As of September 1, 2010, OAR 333-106-0325(8) & (9) became effective which stipulates that the use of hand-held dental X-ray systems is allowable only under certain conditions (see OAR Requirements on page 2).

Although the use of hand-held dental X-ray devices is currently limited, Radiation Protection Services is completing an evaluation of hand-hand units for possible broader use. Any potential change(s) will be based upon the outcome of integrating studies, As Low As Reasonably
Achievable (ALARA) principles, Suggested State Regulations and practices, and RPS and Oregon Board of Dentistry rules and statutes.

Because RPS is undertaking a review of hand-held X-ray devices, RPS will not take formal action against a dentist who is currently using a hand-held X-ray device for general dentistry. Suspension of formal enforcement will remain in effect until March 1, 2011.

However, RPS will be issuing non-compliance citations for operators not wearing leaded aprons while using hand-held dental X-ray devices. As always, RPS will take enforcement action if a situation presents an imminent threat to patient and/or operator safety.

Oregon Administrative Rule 333-106-0325(8) & (9) Requirements

**Imaging**
Because the hand-held unit has lower power ratings, a longer than average exposure time is needed to produce an adequate image. To reduce patient exposure and repeats due to image blurring from tube or patient motion, it is required that the machine be used with E-speed or higher speed film, or with a digital imaging system.

**Training**
Each operator must complete the applications training program supplied by the manufacturer. Records of training must be maintained on file. RPS health physicists will ask to see the training records during regulatory inspections.

**Operator Safety**
While using the hand-held dental unit, operators must wear a lead apron with a thyroid collar of 0.25 mm lead equivalent to ensure that when the unit is held in any position the operator is protected from backscatter radiation. In addition, the hand-held unit X-ray system must be equipped with a permanently attached backscatter shield of 0.25 mm lead equivalent.

For a full text version of the above rule, please see the RPS web site under Administrative rules section at: [www.oregon.gov/DHS/ph/](http://www.oregon.gov/DHS/ph/). RPS can be contacted at 971-673-0490.